

# SEQUENCE LISTING

<110> Fount, Steven K.H.  
Hadlock, Kenneth G.

<120> Prevention and Treatment of HCV Infection Employing  
Antibodies that Inhibit the Interaction of HCV Virions  
with Their Receptor.

<130> 2002850-0009

<140> 09/000/00

<141> 2000-12-01

<160> 35

<170> PatentIn Ver. 2.1

<210> 1

<211> 160

<212> DNA

<213> Hepatitis C Virus

<400> 1

```
ctcaactgga ttcaccaaag tgtgcgagc gcctccttgt gtcacggag gggcgggcaa 60
caacacctg cactgcccc ctgattgctt ccgcaagcat ccgacgcca catactctcg 120
gtgcggtcc ggtccctgga tcacaccag gtgcctggtc 160
```

<210> 2

<211> 160

<212> DNA

<213> Hepatitis C Virus

<400> 2

```
ctcaactgga ttcaccaaag tgtgcgagc gcccccttgt gtcacggag gggcgggcaa 60
caacacctg cgctgcccc ctgattgtt ccgcaagcat ccggaagcca cgtactctcg 120
gtgcggtcc ggtccctgga ttacgccag gtgcctggtc 160
```

<210> 3

<211> 160

<212> DNA

<213> Bovine Pancreatic Ribonuclease A

<400> 3

```
tagtactggg ttactaaga cgtgcgagg ccccccttgt aacatcgagg gggtcggtaa 60
ccgcacctg atctgcccc cggactgctt ccggaagcac cccgaggcta cttacacaaa 120
```

atgtggctcg gggccctggt tgacacctag gtgcctagta

160

<210> 4

<211> 160

<212> DNA

<213> T7 Bacteriophage

<400> 4

tggcacaggg ttcaccaaga cgtgtggggc ccccccattgt aacatcgggg gggtcggcaa 60  
taacaccttg acttgcccca cggactgttt ccggaagcac cccgaggcca cttacaccaa 120  
atgtggttcg gggccttggc tgacacctag gtgcatagtt 160

<210> 5

<211> 166

<212> DNA

<213> Bacterial Protein

<400> 5

ctccactggc tacaccaaga cttgcggcgc accaccctgc cgcattagag ctgacttcaa 60  
tgccagcatg gacttggtgt gcccacgga ctgttttagg aagcatcctg ataccaccta 120  
catcaaattg ggctctgggc cctggctcac gccaaagtgc ctgata 166

<210> 6

<211> 167

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Synthetic

<400> 6

ctccactggt tcacaaaaac ttgcggcgca ccaccctgcc gcatcagagc tgactttaat 60  
gccagcacgg acctgctgtg ccccacggac tgtttcagga agcatcctga agccacttac 120  
atcaaattgt gctctggggc ccccctgtga cgccaaagtg cctaata 167

<210> 7

<211> 166

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Synthetic

<400> 7

[illegible]

```
<400> 11
ctccactgtt tcaccaaaac ttgcgggcga ccaccctgcc gcatcagagc tgactttaat 60
gccagcacgg acctgctgtg ccccacggac tgtttcagga agcatcctga agccacttac 120
atcaaatgtg gctctggggc cctgtgacgc caaagtgcct gata                                     164
```

<210> 12  
<211> 167  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Synthetic

<400> 12  
tgggactggg ttcactaaga catgcggtgc accaccttgc cgcattagga gggactgcaa 60  
cggaaccctc gacctattgt gccccacaga ctgtttcaga aagcaccag atactaccta 120  
ccttaagtgt ggagcggggg ccttggttga ccccaaagt catggta 167

<210> 13  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Flag Epitope

<400> 13  
Asp Tyr Lys Asp Asp Asp Asp Lys  
1 5

<210> 14  
<211> 10  
<212> PRT  
<213> T7 Bacteriophage

<400> 14  
Met Ala Ser Met Thr Gly Gly Gln Met Gly  
1 5 10

<210> 15  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:S-Tag Sequence

<400> 15  
Lys Glu Thr Ala Ala Ala Lys Phe Glu Arg Gln His Met Asp Ser

1

5

10

15

<210> 16  
 <211> 20  
 <212> DNA  
 <213> Hepatitis C Virus

<400> 16  
 cgcgcacraa gtasggyact

20

<210> 17  
 <211> 21  
 <212> DNA  
 <213> Hepatitis C Virus

<400> 17  
 cgcatggcnt gggayatgat g

21

<210> 18  
 <211> 32  
 <212> DNA  
 <213> Hepatitis C Virus

<400> 18  
 cgaagcttca tatgatcgct ggtgctcact gg

32

<210> 19  
 <211> 38  
 <212> DNA  
 <213> Hepatitis C Virus

<400> 19  
 gcggatccct gcagctacaa actggcttga agaatcca

38

<210> 20  
 <211> 34  
 <212> DNA  
 <213> Hepatitis C Virus

<400> 20  
 cgcatatgga gctcgcgggg gccactggg gagg

34

<210> 21  
<211> 38  
<212> DNA  
<213> Hepatitis C Virus

<400> 21  
gctctagact gcagctatat gccagcctgg agcaccat

38

<210> 22  
<211> 34  
<212> DNA  
<213> Hepatitis C Virus

<400> 22  
cgctcgagcc atggttggcg gggctcattg gggc

34

<210> 23  
<211> 40  
<212> DNA  
<213> Hepatitis C Virus

<400> 23  
tcgaattcgg atcctacaaa gcacctttta ggagataagc

40

<210> 24  
<211> 34  
<212> DNA  
<213> Hepatitis C Virus

<400> 24  
cgctcgagcc atggttttcg gcggccattg ggtg

34

<210> 25  
<211> 40  
<212> DNA  
<213> Hepatitis C Virus

<400> 25  
tcgaattcgg atcctacaga gacgctttaa ggaggtaggc

40

<210> 26  
<211> 23  
<212> DNA

[illegible]

23

23

26

26

26

26

26

26

<213> Artificial Sequence

<223> Description of Artificial Sequence: Pdisplay Vector  
Sequence with E2 insert of Sflb-E2

Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro  
1 5 10 15

Gly Ser Thr Gly Asp Tyr Pro Tyr Asp Val Pro Asp Tyr Ala Gly Ala  
20 25 30

Gln Pro Ala Arg Ser Thr Thr Tyr Thr Thr Gly Gly Ala Ala Ser Arg  
35 40 45

Thr Thr Gly Thr Phe Thr Ser Leu Phe Asn Ala Gly Ser Ser Gln Lys  
50 55 60

Ile Gln Leu Ile Asn Thr Asn Gly Ser Trp His Ile Asn Arg Thr Ala  
65 70 75 80

Leu Asn Cys Asn Asp Ser Leu Asn Thr Gly Phe Leu Ala Ala Leu Phe  
85 90 95

Tyr Val His Arg Phe Asn Ala Ser Gly Cys Pro Ala Arg Met Ala Ser  
100 105 110

Cys Arg Ser Ile Asp Ala Phe Asp Gln Gly Trp Gly Pro Ile Thr Tyr  
115 120 125

Ala Glu Ser His Ser Ser Asp Gln Arg Pro Tyr Cys Trp His Tyr Ala  
 130 135 140

Pro Lys Pro Cys Gly Ile Val Pro Ala Ser Gln Val Cys Gly Pro Val  
 145 150 155 160

Tyr Cys Phe Thr Pro Ser Pro Val Val Val Gly Thr Thr Asp His His  
 165 170 175

Gly Val Pro Thr Tyr Ser Trp Gly Glu Asn Glu Thr Asp Val Leu Leu  
 180 185 190

Leu Asn Asn Thr Arg Pro Pro Gln Gly Asn Trp Phe Gly Cys Thr Trp  
 195 200 205

Met Asn Gly Thr Gly Phe Thr Lys Thr Cys Gly Gly Pro Pro Cys Asn  
 210 215 220

Ile Gly Gly Val Gly Asn Asn Thr Leu Thr Cys Pro Thr Asp Cys Phe  
 225 230 235 240

Arg Lys His Pro Glu Ala Thr Tyr Thr Lys Cys Gly Ser Gly Pro Trp  
 245 250 255

Leu Thr Pro Arg Cys Ile Val Asp Tyr Pro Tyr Arg Leu Trp His Tyr  
 260 265 270

Pro Cys Thr Val Asn Phe Thr Ile Phe Lys Val Arg Met Tyr Val Gly  
 275 280 285

Gly Met Glu His Arg Leu Asn Ala Ala Cys Asn Trp Thr Arg Gly Glu  
 290 295 300

Arg Cys Asp Leu Glu Asp Arg Asp Arg Ser Glu Leu Gln Val Ala Glu  
 305 310 315 320

Gln Lys Leu Ile Ser Glu Glu Asp Leu Asn Ala Val Gly Gln Asp Thr  
 325 330 335

Gln Glu Val Ile Val Val Pro His Ser Leu Pro Phe Lys Val Val Val  
 340 345 350

Ile Ser Ala Ile Leu Ala Leu Val Val Leu Thr Ile Ile Ser Leu Ile  
 355 360 365

Ile Leu Ile Met Leu Trp Gln Lys Lys Pro Arg  
 370 375



<210> 29  
 <211> 278  
 <212> PRT  
 <213> Hepatitis C Virus

<400> 29

Thr	Thr	Tyr	Thr	Thr	Gly	Gly	Ala	Ala	Ser	Arg	Thr	Thr	Gly	Thr	Phe
1				5					10					15	
Thr	Ser	Leu	Phe	Asn	Ala	Gly	Ser	Ser	Gln	Lys	Ile	Gln	Leu	Ile	Asn
			20				25						30		
Thr	Asn	Gly	Ser	Trp	His	Ile	Asn	Arg	Thr	Ala	Leu	Asn	Cys	Asn	Asp
		35					40					45			
Ser	Leu	Asn	Thr	Gly	Phe	Leu	Ala	Ala	Leu	Phe	Tyr	Val	His	Arg	Phe
	50					55					60				
Asn	Ala	Ser	Gly	Cys	Pro	Ala	Arg	Met	Ala	Ser	Cys	Arg	Ser	Ile	Asp
65					70					75					80
Ala	Phe	Asp	Gln	Gly	Trp	Gly	Pro	Ile	Thr	Tyr	Ala	Glu	Ser	His	Ser
			85					90						95	
Ser	Asp	Gln	Arg	Pro	Tyr	Cys	Trp	His	Tyr	Ala	Pro	Lys	Pro	Cys	Gly
		100						105					110		
Ile	Val	Pro	Ala	Ser	Gln	Val	Cys	Gly	Pro	Val	Tyr	Cys	Phe	Thr	Pro
	115						120					125			
Ser	Pro	Val	Val	Val	Gly	Thr	Thr	Asp	His	His	Gly	Val	Pro	Thr	Tyr
	130					135					140				
Ser	Trp	Gly	Glu	Asn	Glu	Thr	Asp	Val	Leu	Leu	Leu	Asn	Asn	Thr	Arg
145				150					155					160	
Pro	Pro	Gln	Gly	Asn	Trp	Phe	Gly	Cys	Thr	Trp	Met	Asn	Gly	Thr	Gly
			165						170					175	
Phe	Thr	Lys	Thr	Cys	Gly	Gly	Pro	Pro	Cys	Asn	Ile	Gly	Gly	Val	Gly
		180					185						190		
Asn	Asn	Thr	Leu	Thr	Cys	Pro	Thr	Asp	Cys	Phe	Arg	Lys	His	Pro	Glu
	195						200					205			
Ala	Thr	Tyr	Thr	Lys	Cys	Gly	Ser	Gly	Pro	Trp	Leu	Thr	Pro	Arg	Cys

220

Asp Arg Asp Arg Ser Glu  
275

<213> Hepatitis C Virus

Leu Asn Asn Thr Arg. Pro Pro Gln Gly Asn Trp Phe Gly Cys Thr Trp  
130 135 140

Met Asn Gly Thr Gly Phe Thr Lys Thr Cys Gly Gly Pro Pro Cys Asn  
145 150 155 160

Ile Gly Gly Val Gly Asn Asn Thr Leu Thr Cys Pro Thr Asp Cys Phe  
165 170 175

Arg Lys His Pro Glu Ala Thr Tyr Thr Lys Cys Gly Ser Gly Pro Trp  
180 185 190

Leu Thr Pro Arg Cys Ile Val Asp Tyr Pro Tyr Arg Leu Trp His Tyr  
195 200 205

Pro Cys Thr Val Asn Phe Thr Ile Phe Lys Val Arg Met Tyr Val Gly  
210 215 220

Gly Met Glu His Arg Leu Asn Ala Ala Cys Asn Trp Thr Arg Gly Glu  
225 230 235 240

Arg Cys Asp Leu Glu Asp Arg Asp Arg Ser Glu  
245 250

<210> 31

<211> 215

<212> PRT

<213> Hepatitis C Virus

<400> 31

Phe Asn Ala Ser Gly Cys Pro Ala Arg Met Ala Ser Cys Arg Ser Ile  
1 5 10 15

Asp Ala Phe Asp Gln Gly Trp Gly Pro Ile Thr Tyr Ala Glu Ser His  
20 25 30

Ser Ser Asp Gln Arg Pro Tyr Cys Trp His Tyr Ala Pro Lys Pro Cys  
35 40 45

Gly Ile Val Pro Ala Ser Gln Val Cys Gly Pro Val Tyr Cys Phe Thr  
50 55 60

Pro Ser Pro Val Val Val Gly Thr Thr Asp His His Gly Val Pro Thr  
65 70 75 80

Tyr Ser Trp Gly Glu Asn Glu Thr Asp Val Leu Leu Leu Asn Asn Thr  
85 90 95

Arg Pro Pro Gln Gly Asn Trp Phe Gly Cys Thr Trp Met Asn Gly Thr  
100 105 110



100

105

110

Pro Thr Asp Cys Phe Arg Lys His Pro Glu Ala Thr Tyr Thr Lys Cys  
115 120 125

Gly Ser Gly Pro Trp Leu Thr Pro Arg Cys Ile Val Asp Tyr Pro Tyr  
130 135 140

Arg Leu Trp His Tyr Pro Cys Thr Val Asn Phe Thr Ile Phe Lys Val  
145 150 155 160

Arg Met Tyr Val Gly Gly Met Glu His Arg Leu Asn Ala Ala Cys Asn  
165 170 175

Trp Thr Arg Gly Glu Arg Cys Asp Leu Glu Asp Arg Asp Arg Ser Glu  
180 185 190

&lt;210&gt; 33

&lt;211&gt; 261

&lt;212&gt; PRT

&lt;213&gt; Hepatitis C Virus

&lt;400&gt; 33

Thr Thr Tyr Thr Thr Gly Gly Ala Ala Ser Arg Thr Thr Gly Thr Phe  
1 5 10 15

Thr Ser Leu Phe Asn Ala Gly Ser Ser Gln Lys Ile Gln Leu Ile Asn  
20 25 30

Thr Asn Gly Ser Trp His Ile Asn Arg Thr Ala Leu Asn Cys Asn Asp  
35 40 45

Ser Leu Asn Thr Gly Phe Leu Ala Ala Leu Phe Tyr Val His Arg Phe  
50 55 60

Asn Ala Ser Gly Cys Pro Ala Arg Met Ala Ser Cys Arg Ser Ile Asp  
65 70 75 80

Ala Phe Asp Gln Gly Trp Gly Pro Ile Thr Tyr Ala Glu Ser His Ser  
85 90 95

Ser Asp Gln Arg Pro Tyr Cys Trp His Tyr Ala Pro Lys Pro Cys Gly  
100 105 110





80

Trp Ala Lys Val Leu Ile Val Met Leu Leu Phe Ala Gly Val Asp Gly  
180 185 190

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	